GPS World 2014 Buyers Guide

- COMPANY DIRECTORY
- PRODUCT & SERVICES DIRECTORY
- CORPORATE PROFILES

The Only Industry Reference for Manufacturers and System Integrators

Featuring 110 GNSS Companies and 109 Product Categories!

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GPS World

2014 Buyers Guide

+ CORPORATE PROFILES

This annual two-part directory guides you to product manufacturers and service providers in the GNSS industry. The Company Directory begins on page **28**; the Products and Services Directory starts on page **36**.

This information is provided by the manufacturers. Every effort has been made to ensure accuracy; however, *GPS World* is not responsible for the content of the information or for the performance of equipment listed. To appear in the 2015 Buyers Guide, email gpsworld@gpsworld.com before March 15, 2015.

36 Accessories
Cable assemblies
Connectors
Power supplies/converters
Buffer boxes
Communications datalinks/ modems
Other

36 Antennas
GPS, integrated
GPS, external
GPS/communications
Antijam/interference suppression units

38 Differential GPS
DGPS-capable radiobeacon receivers
Real-time DGPS receivers
Real-time DGPS correction services
Reference stations

38 Digital compasses

38 Electronic charts/maps

38 GLONASS hardware/ software

38 Integrated navigation equipment
Dead reckoning
Inertial
Loran-C
Radiobeacon

40 Integrated instrumentation with GPS
Automated machine control
Bar-code scanner
Camera
Wireless communications
Datalogger
Infrared/multispectral sensors
Integrity monitoring
Laser rangefinders
PC/laptop/handheld computer
Sonar
Variable-rate controllers
Videography (including time/ position captioning)
Yield monitors
Ionospheric calibrators

40 Mapping
Chartplotters
Data conversion
Digital mapbases
Geographic info systems
Imagery
Interfaces
Systems
Market analyses/reports

42 Photogrammetry/GPS integrated systems

42 Precise ephemeris information

42 Publications, guides, videos, training software, etc.

42 Receiver Components
Alphanumeric displays
Bandpass filters
Chips/ICs
Graphical displays
Interfaces
Modules
Quartz crystals
RF amplifiers/preamplifiers

42 Receiver-performance analysis

42 Receivers
Attitude/direction finding
Automatic vehicle location
Aviation
Computer GPS cards/modules
Digital signal prcessor integrated chip (DSP-IC)
Geodetic/geophysical
Handheld
Land vehicle navigation/route guidance
Marine
Military
OEM modules/engines/ chipsets
PCMCIA cards
Radio frequency integrated chip (RF-IC)
Software receivers
Space
Surveying
Surveying/GIS
Surveying/RTK
Timing
Tracking

44 Satellite signal simulators/pseudolites

44 Security code decryption devices

44 Seminars/training

44 Software
Coordinate conversion
Geodetic surveying
Geotagging
GIS/LIS
GPS-related Internet applications (mapping, navigation, tracking, etc.)
Mapping
Mission planning
Navigation/route guidance
Network adjustment
Orbit analysis and simulation
Pre-/postprocessing
System performance analysis
Vehicle/vessel/asset tracking

45 Surveying-related equipment
Dataloggers
Electronic fieldbooks
Pen-based survey/GIS

45 System design/ integration

45 Timing
Time-code generators
Time-transfer stations
Timing clocks
Timing/frequency systems

45 Tracking services (mobile assets, roadside assistance, E-911, etc.)

45 Vehicle location/ tracking workstations and systems (computer-aided dispatch)

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2014 Buyers Guide

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Aeroflex Test Solutions is a global leader in the Test and Measurement Instrumentation marketplace. Our products support a wide range of industries including aerospace, defense and wireless mobile and broadband communications. Our proven solutions encompass a full spectrum of instrumentation from turnkey systems, stand-alone boxes or modular components that provide customers with highly reliable, customized, innovative and cost effective testing tools.

Since the early 1990's, Aeroflex Test Solutions has manufactured and sold a single channel GPS simulator called the GPS-101. This simulator filled a market need for affordable, Go/No-Go testing of GPS receivers. However, as the capability, complexity and diversity of GNSS-enabled devices continues to evolve, Aeroflex sees the need to provide more thorough test capability of these ubiquitous GNSS devices while maintaining an economical price point. With this in mind, Aeroflex designed the GPSG-1000. The GPSG-1000 is a 6 or 12 channel GPS/Galileo simulator capable of creating static or dynamic motion, Time to First Fix, Time to Second Fix and Receiver Sensitivity tests for any GPS or Galileo receiver or location capable unit. Its capabilities provide significant value when compared to commonly used signal sources or test methodologies such as GPS repeaters or drive and flight testing. The GPS-1000's versatility and affordability for the validation and test of GPS receivers as well as navigation and tracking systems makes it ideal for aerospace, automotive and rail system industries.

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CHC Navigation

CHC Navigation designs, manufactures and markets a wide range of professional GPS/GNSS solutions in more than 50 countries. Headquartered in Shanghai (China), CHC is a leading GPS/GNSS manufacturer with a strong international presence and employs more than 500 professionals worldwide.

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CAST Navigation, LLC

Corporate Description

CAST Navigation, LLC (CAST) leads the way with over two decades of GPS experience, customer loyalty and product reliability. CAST simulators are engineering tools designed to support navigation system research, development, systems integration and test. CAST continues to expand its capabilities not only in the GPS signal arena but also in the use of the latest hardware components to build our Windows-based satellite signal generator. Our proprietary generator uses FPGA technology that allows for rapid expansion of capabilities and unlimited growth. Our newest systems are cost effective and extremely reliable. CAST's only business is building simulators. We pride ourselves on being the best.

CAST-SGX

CAST-EMT3500-1

CAST-3000

Product Research and Innovation

An important new development in GPS signal simulation and generation, CAST recently introduced the CAST-SGX GPS Satellite Simulator. With its compact size 7in(H) x 11in(W) x 3in(D) and weighing just over 4 pounds, the SGX is CAST's newest and smallest fully capable simulator. This signal simulator provides the user with dynamic, repeatable GPS RF signals for use in the laboratory or in the field for a wide range of GPS applications. The CAST-SGX simulator is capable of generating up to 16 satellites of GPS CA code on L1. The user can also add the P code capability as an option. The SGX is based on CAST's state of the art technology that has been developed for use in our larger military products. The CAST-3500 series is reliable and portable for the end users. The EMT3500-1T, for example, is a laptop-sized tester that allows the end user to perform a wide range of functions and tests without the expense of removing the EGI unit (saving on cost, aircraft down time, and man-hours). CAST also developed a 3D visualization tool that provides the user with a three-dimensional animated view of the terrain surrounding the vehicle.

Client Base

CAST has become a world leader in the design, development, manufacturing, and integration of globally innovative GPS/INS Simulators and associated equipment for a broad list of customers including the military, prime US and foreign vendors and commercial users. Some of the platforms supported include: F-35 Lighting II, F-22 Raptor, B-1B Lancer, B-2 Spirit, E-2 Hawkeye, E-3 Sentry, F-15 Eagle, F-16 Fighter Falcon, F/A-18 Super Hornet, AH-64A/D Apache, Eurofighter Typhoon, UH-60 Blackhawk, CH-47/MH-47E Chinook, SLAM-ER missile and JDAM smart weapons.

CAST Commitment

The CAST Navigation team remains committed to maintaining the highest ethical standards and dedication to excellence in all of our operational aspects. Our aspirations to exceed our customers' expectations are unsurpassed. Customer support, coupled with our R&D philosophy to look not only at the next generation but to the one after that, have made CAST the leader and benchmark setter within the industry.

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GPS Source, Inc.

Since 2000, GPS Source (GPSS) has been designing, manufacturing, and selling PNT Solutions to both military and commercial markets. They are an AS9100C certified company with core competencies in Global Positioning Satellite technology and Radio Frequency technology.

GPS Source is proud to have been selected by the US Army to provide **D3** - an efficient tool that creates one single point of access to multiple devices requiring secure PNT data on a fixed vehicle platform. **D3 is IS-GPS-153 compliant** and is a PNT data distribution hub. The D3 is one of several product offerings by GPS Source than can help reduce SWaP on a ground vehicle. The D3 is also an affordable means to navigate to M-code, as it can handle legacy PNT equipment and new M-Code signal applications.

GPSS offers the military market a full line of Military GPS Retransmission Kits featuring the **GLI-ECHO II - a smart GPS repeater** that controls signal level. GLI-ECHO II eliminates Time-To-First-Fix, Improves Situational Awareness and gives continual grid coordinate availability inside any GPS denied environment.

Their newest products are military qualified GNSS antennas created for use with the new **ECHO IIG smart repeater**. The new ECHO IIG smart repeater receives GLONASS as well as GPS and allows the user to control the output power level of GPS, GLONASS or a combination of both. The GNSS antennas will be available in both passive and active configurations.

GPSS is well suited to the challenges of new avionics, sensors, test instrumentation, miniaturized electronics, and telemetry. Their previous experience developing products for Boeing's C17, V-22, C-130, C-27J, and various

SOF programs has created a strong knowledge base for design, development, and maintenance of electronics for military applications. Most GPSS products can be ordered in a Mil Standard configuration, ensuring proper testing and certification.

At its core, GPSS is an engineering company that enjoys designing high quality, dependable, RF Signal Distribution and Retransmission solutions.

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Germany
+49 911 300 339 80
info@teleorbit.eu
www.teleorbit.eu

Telit Wireless Solutions
3131 RDU Center Drive, Suite 135
Morrisville, NC 27560
(919) 439-7977
NORTHAMERICA@telit.com
www.telit.com

THALES
3, rue Toussaint Catros
Le Haillan 33187 France
+33-4-75-79-35-35
info.navequipment@fr.thalesgroup.com
www.thalesgroup.com

Time & Frequency Solutions Ltd.
25 Eastways
Witham, Essex CM8 3AL
United Kingdom
+44 (0) 1376 514 114
enquiries@timefreq.com
www.timefreq.com

Topcon Positioning Systems
7400 National Drive
Livermore, CA 94550
925-245-8300
www.topconpositioning.com

Trimble
925 Stewart Drive
Sunnyvale, CA 94085-3642
408-481-8000
sales_info@trimble.com
www.trimble.com

U-Z

u-blox AG
Zuercherstrasse 68
CH-8800 Thalwil
Switzerland
+41 44 722 7444
info@u-blox.com
www.u-blox.com

Wang Electro-Opto Corp.
805 Franklin Ct. SE, Suite B
Marietta, GA 30067
770-955-9311
products@weo.com
www.weo.com

u-blox

u-blox is a globally leading Swiss semiconductor company with presence on 4 continents. We provide components for embedded satellite positioning and 2G / 3G / 4G cellular communications. We deliver a wide range of compact, low-power, high-performance products for automotive, industrial M2M and consumer applications.

Our positioning products include chips and modules supporting all GNSS systems, automotive dead reckoning (ADR), precision timing for cellular base stations, precise point positioning (PPP) for sub-meter applications, and GNSS modules with integrated antenna.

The products offer precise feature sets tailored for specific applications plus module form-factor consistency allowing easy upgrade with each new product generation.

u-blox AG
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Switzerland
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www.u-blox.com
info@u-blox.com

See website for local contacts.

ADVERTORIAL

NovAtel® Inc.

NovAtel Inc. designs, manufactures and sells high precision OEM Global Navigation Satellite System (GNSS) positioning technology. Developed for efficient and rapid integration, our GNSS products have set the standard in quality and performance for over 20 years. Our technology is inside many of the most advanced positioning applications within a variety of industries including agriculture, unmanned systems, military & defense and marine.

Ensuring Customer Success

Our goals are firmly in line with yours. As a true OEM supplier of precise positioning technology, we deliver GNSS innovations that help drive your success. We help many of the world's leading companies stay in the lead by consistently delivering OEM GNSS products that are recognized for their technical innovation, unsurpassed quality and industry-leading customer support. And by reinvesting heavily in research and development, we're continually developing new solutions and applications that ensure a well-aligned product mix to meet the technical demands and competitive challenges of your business.

Precise Products, Superior Solutions

We're here to keep you ahead of the competition and we're doing it with quality products and solutions.

Precision GNSS Receivers

Available card-level or enclosed, our multi-constellation, multi-frequency receivers offer low power consumption, field upgradeable software and comprehensive message suites for ease of configuration and data logging. Field upgradeable firmware options include ALIGN® GNSS heading technology and GLIDE™ positioning smoothing technology.

SPAN® GNSS Inertial Systems

SPAN tightly couples NovAtel's GNSS receivers with Inertial Measurement Units (IMU) for reliable, continuously available 3D position, velocity and attitude – even during periods of satellite signal unavailability.

Antennas

The right antenna maximizes your system's performance. Our extensive GNSS antenna product line delivers many options, from compact, lightweight, low profile GNSS antennas for aviation applications to robust options for agricultural or machine control applications.

SMART Antennas

SMART antennas integrate a GNSS receiver card and a high performance antenna element in a single compact enclosure. This combination simplifies installation and operation.

GNSS Post Processing Software

Waypoint® post-processing software (GrafNav / GrafNet® and Inertial Explorer®) maximizes accuracy and provides the ability to analyze position, velocity or attitude.

NovAtel CORRECT™ with TerraStar Now Available

NovAtel CORRECT with TerraStar provides precise point positioning (PPP) corrections anywhere, anytime. When it's impossible or impractical to set up RTK base-station infrastructure, PPP corrections from TerraStar deliver consistent decimetre-level positioning via satellite globally. GPS + GLONASS corrections provide greater solution availability.

NovAtel Inc.
1120 - 68th Avenue N.E.
Calgary, Alberta
CanadaT2E 8S5

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1-800-NOVATEL
(1-800-668-2835)

Email:
sales@novatel.com

Web:
www.novatel.com

PRODUCT & SERVICES DIRECTORY

ACCESSORIES

Cable assemblies
AeroAntenna Technology, Inc.
ALLSAT GmbH
Antcom Corporation
Brandywine Communications
Furuno USA, Inc.
GPS Networking, Inc.
Impact Power, Inc.
Leica Geosystems
Microwave Photonic Systems
Mobile Mark, Inc.
NavCom Technology
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Oxford Technical Solutions
Panorama Antennas Ltd.
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Taoglas Limited
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NavCom Technology
Oxford Technical Solutions
Topcon Positioning Systems
Trimble

ComNav Technology Ltd.

ComNav Technology Ltd. is a world-leading, high-accuracy positioning solutions supplier that focuses on high-accuracy GNSS core technology R&D, manufacturing and marketing. We have 100 employees around the globe, more than half of whom are engaged in R&D. Before joining ComNav, most of our R&D staff had long careers in the high-accuracy GNSS industry, giving them in-depth experience on high-accuracy GNSS product development. Maker of the first small-sized, high-accuracy GPS+BeiDou OEM board in the world, ComNav is dedicated to supplying reliable and competitive high-accuracy GNSS solutions to customers worldwide.

Building E, No.50 Alley 2080 Lianhua Road
201103 Shanghai - China
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Fax: +86 21 54309582
Email: sales@comnavtech.com
www.comnavtech.com

ComNav

Buffer boxes
ALLSAT GmbH
Precise Time and Frequency, Inc.

Communications datalinks/ modems
ALLSAT GmbH
ComNav Technology
GPS Source, Inc.
Harxon Corporation
JAVAD GNSS
KCS BV
Laipac Technology, Inc.
Leica Geosystems
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NavCom Technology
Rojone Pty. Ltd.
Tallysman Wireless
Topcon Positioning Systems
Trimble
u-blox AG

Other
Geotab
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ikeGPS Inc.
Microwave Photonic Systems
PCTEL
Racelogic Labsat

ANTENNAS

GPS, integrated
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Antenova Ltd.
BAE Systems Rokar
Brandywine Communications
ComNav Technology
DataGrid Inc.
Exelis, Inc.
Falcom USA
FEI-Zyfer, Inc.
ftech Radio Frequency System Corporation
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GlobalTop Technology, Inc.
GPS Networking, Inc.
GPS Source, Inc.
Hemisphere GNSS
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Impact Power, Inc.
Infospectrum
Inventek Systems
JAVAD GNSS
KCS BV
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Leica Geosystems
Maxtena
Micro Modular Technologies
Microwave Photonic Systems
Mobile Mark, Inc.
NavCom Technology
NovAtel, Inc.
Oxford Technical Solutions
Panorama Antennas Ltd.
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PCTEL
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Rojone Pty. Ltd.
SkyTraq Technology, Inc.
Sokkia Corporation
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Spectratime
Spectrum Instruments, Inc.
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Taoglas Limited
Time & Frequency Solutions Ltd.
Topcon Positioning Systems
Trimble
u-blox AG
Wang Electro-Opto Corp.

GPS, external
AeroAntenna Technology, Inc.
Allis Communications Co. Ltd.
Altus Positioning Systems
Antcom Corporation
Ashtech OEM
ComNav Technology
DataGrid Inc.
EndRun Technologies
Exelis, Inc.
Falcom USA
FEI-Zyfer, Inc.
ftech Radio Frequency System Corporation
Furuno USA, Inc.
GlobalTop Technology, Inc.
GPS Networking, Inc.
GPS Source, Inc.
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Impact Power, Inc.
Inventek Systems
JAVAD GNSS
KCS BV
Laipac Technology, Inc.
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Maxtena
Microwave Photonic Systems
Mobile Mark, Inc.
NavCom Technology
NVS Technologies AG
Panasonic Electric Works of America
Panorama Antennas Ltd.
Parsec Technologies, Inc.
PCTEL

ADVERTORIAL

Panasonic

The VIC100 Series

The VIC100 Series antenna is an active L1 GPS antenna that is designed primarily for timing and synchronization for various industries:

Immunity to noise and interference

Secure performance by attenuating noise and interference near GPS L1 frequency through triple filtering design.

Durability in severe environments

The VIC100 Series L1 GPS Antenna is housed in a waterproof enclosure that is designed for excellent performance under severe environment (rain, snow, etc.) with application conscious design. The unique shape of the antenna prevents accumulation of snow and ice, preventing interference from the elements and eliminating problems associated with bird perching.

Immunity to lightning surge

Due to the placement of the antenna on top of structures the VIC100 Series L1 GPS Antenna is designed with enhanced immunity to lightning surge [IEC61000-4-5 Level 4(4000V)] preventing antenna failure caused by induced lightning.

The VIC100 Series L1 GPS Antenna is designed in full compliance with the European RoHS Directive.

VIC100 Series with Enhanced Filter

Contact us at panasonic.com/gps

Precise Time and Frequency, Inc.
Racelogic Labsat
Rockwell Collins
Rojone Pty. Ltd.
Septentrio Satellite Navigation
Sokkia Corporation
Spectracom
Spectratime
Tallysman Wireless
Taoglas Limited
Time & Frequency Solutions Ltd.
Topcon Positioning Systems
Trimble
u-blox AG
Wang Electro-Opto Corp.

GPS/communications

AeroAntenna Technology, Inc.
Allis Communications Co. Ltd.
Altus Positioning Systems
Antcom Corporation
Antenova Ltd.
Brandywine Communications
CHC Navigation
ComNav Technology
CSR plc
FEI-Zyfer, Inc.
Furuno USA, Inc.
GPS Networking, Inc.
GPS Source, Inc.
Harxon Corporation
Impact Power, Inc.
Inventek Systems
Japan Radio Co. Ltd.
JAVAD GNSS
KCS BV
Laipac Technology, Inc.
Leica Geosystems
Maxtena
Microwave Photonic Systems
Mobile Mark, Inc.
NavCom Technology
Panorama Antennas Ltd.
Parsec Technologies, Inc.
PCTEL
Precise Time and Frequency, Inc.
Racelogic Labsat
Rojone Pty. Ltd.
Spectracom
Spectratime
Spectrum Instruments, Inc.
Tallysman Wireless
Taoglas Limited
Topcon Positioning Systems
Trimble
u-blox AG
Wang Electro-Opto Corp.

Antijam/interference suppression units

AeroAntenna Technology, Inc.
Antcom Corporation
Applied EM
BAE Systems Rokar
CAST Navigation LLC
ComNav Technology
Exelis, Inc.
GlobalTop Technology, Inc.
IFEN
Interstate Electronics (L-3 Communications)
JAVAD GNSS
NavCom Technology
NovAtel, Inc.
NVS Technologies AG
Panasonic Electric Works of America
Parsec Technologies, Inc.
Raytheon Space and Airborne Systems
Rockwell Collins
Spirent Federal Systems
THALES

DIFFERENTIAL GPS

DGPS-capable radiobeacon receivers

ALLSAT GmbH
ComNav Technology
Geneq, Inc.
GEOsat GmbH
Harxon Corporation
Hemisphere GNSS
ikeGPS Inc.
JAVAD GNSS
Leica Geosystems
NVS Technologies AG
Oxford Technical Solutions
Racelogic Labsat
Rojone Pty. Ltd.
Sokkia Corporation
Telit Wireless Solutions
Topcon Positioning Systems
Trimble

Real-time DGPS receivers

ALLSAT GmbH
Altus Positioning Systems
Ashtech OEM
BAE Systems Rokar
Beijng UniStrong Science & Technology
CHC Navigation
ComNav Technology
DataGrid Inc.
Furuno USA, Inc.
Geneq, Inc.
Geodetics, Inc.
GEOsat GmbH
Hemisphere GNSS
JAVAD GNSS
Leica Geosystems
NavCom Technology
NovAtel, Inc.
NVS Technologies AG
Oxford Technical Solutions
Racelogic Labsat
Rockwell Collins
Rojone Pty. Ltd.
Septentrio Satellite Navigation
SkyTraq Technology, Inc.
Sokkia Corporation
Telit Wireless Solutions
Topcon Positioning Systems
Trimble
u-blox AG

Real-time DGPS correction services

ALLSAT GmbH
CHC Navigation
ComNav Technology
Furuno USA, Inc.
Geodetics, Inc.
Harxon Corporation
JAVAD GNSS
Leica Geosystems
NavCom Technology
NovAtel, Inc.
NVS Technologies AG
OmniSTAR
Racelogic Labsat
Rojone Pty. Ltd.
Septentrio Satellite Navigation
Topcon Positioning Systems
Trimble

Reference stations

ALLSAT GmbH
Altus Positioning Systems
Broadcom Corporation
CHC Navigation
ComNav Technology
DataGrid Inc.
Geneq, Inc.
Geodetics, Inc.
JAVAD GNSS
Leica Geosystems
Microwave Photonic Systems
NavCom Technology
NovAtel, Inc.
NVS Technologies AG
PCTEL
Racelogic Labsat
Septentrio Satellite Navigation
Topcon Positioning Systems
Trimble

DIGITAL COMPASSES

DataGrid Inc.
Furuno USA, Inc.
GlobalTop Technology, Inc.
Hemisphere GNSS
ikeGPS Inc.
Leica Geosystems
Racelogic Labsat
Silicom
STMicroelectronics
Topcon Positioning Systems
Trimble

ELECTRONIC CHARTS/MAPS

Furuno USA, Inc.
Global Navigation Software Co.
Leica Geosystems
Racelogic Labsat
Silicom
Topcon Positioning Systems
Trimble

GLONASS HARDWARE/ SOFTWARE

ALLSAT GmbH
Antenova Ltd.
Ashtech OEM
BAE Systems Rokar
Brandywine Communications
Broadcom Corporation
CAST Navigation LLC
CHC Navigation
ComNav Technology
CSR plc
DataGrid Inc.
Geneq, Inc.
GEOsat GmbH
Hemisphere GNSS
Impact Power, Inc.
JAVAD GNSS
Leica Geosystems
NavCom Technology
NovAtel, Inc.
NVS Technologies AG
Oxford Technical Solutions
PCTEL
Racelogic Labsat
Rohde & Schwarz
Septentrio Satellite Navigation
Sokkia Corporation
Spectracom
Spirent Federal Systems
STMicroelectronics
Tallysman Wireless
TeleOrbit GmbH
Telit Wireless Solutions
THALES
Topcon Positioning Systems
Trimble
u-blox AG

INTEGRATED NAVIGATION EQUIPMENT

Dead reckoning

Applanix
Broadcom Corporation
CSR plc
Furuno USA, Inc.
GlobalTop Technology, Inc.
NVS Technologies AG
Racelogic Labsat
SkyTraq Technology, Inc.
TeleOrbit GmbH
Telit Wireless Solutions
THALES
Trimble
u-blox AG

Inertial

Applanix
Broadcom Corporation
CAST Navigation LLC
Exelis, Inc.
Geodetics, Inc.
GlobalTop Technology, Inc.
KVH Industries
NavCom Technology
NovAtel, Inc.

ftech

ftech designs and manufactures high performance GNSS and GPS receivers also with various wireless modules for applying in professional industrial field and consumer electronics products.

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ADVERTORIAL

Parsec Technologies, Inc.

Founded in 2003, Parsec Technologies, Inc. is headquartered in Plano, Texas and is a global provider of advanced antenna and amplifier technology. Parsec specializes in embedded surface mount active and passive GPS/GNSS antenna modules for M2M and IoT applications. In addition to the PTA family of GPS/GNSS antennas, Parsec also offers a full line of high performance, low noise amplifier (LNA) IC's for wireless and mobile markets.

Parsecs' product line is designed for tracking devices that move! We build antennas for devices that cannot depend on clear sky conditions due to movement or concealed applications. Parsecs' technology advantage is having patented and patent pending technology on both the LNA's and antennas. Parsecs' high efficiency embedded antennas allow for a smaller ground plane while providing higher gain and higher IP3 performance. This advantage insures low noise and excellent receiver abilities regardless of the X, Y coordinates. Parsecs' PTA family of active or passive antennas are based on the principals of mitigating interference issues while allowing multiple IoT (Internet-of-Things) products the ability to reliably communicate. Parsec' antenna and amplifier technology answers the call to allow wireless signals to **Go The Distance**.

Embedded OEM Offerings

The PTA1.5 family of antennas are true SMT modules at only 1.3mm thick and integrate easily with industry leading GNSS/GPS SIP and system on chip (SoC) receivers with only a single direct connection typically required. They are compatible with any GNSS receiver operating from 1560 to 1610 MHz. The PTA 1.5 family is ideal for embedded LBS receivers requiring good user experience.

PTA1.5M-9 Micro-Miniature SMT Low Noise High Efficiency GPS/GNSS Active Antenna

Parsecs' PTA1.5M-9 is the world's smallest GPS/GNSS L1 high radiated efficiency active antenna at 9 x 9.175 x 1.3 mm (L x W x H)

Key Benefits

- micro miniature size (9 x 9.175 x 1.3 mm, LxWxH)
- 50-MHz Bandwidth: covers GNSS systems from 1560-1610 MHz
- highest radiated efficiency, η, in class (50% at 1575.42 MHz)
- antenna gain, Ga = 0.8 dBi @ Fc = 1575.42 MHz, Linear Polarization
- deal for M2M GPS/GNSS requirements

PTA1.5M-16 Miniature SMT Low Noise High Efficiency GPS/GNSS Active Antenna

Parsecs' PTA1.5M-16 is the perfect companion for GPS/GNSS receivers which need a highly efficient active antenna with a limited ground plane in a small form factor, at 16 x 9.175 x 1.3 mm (L x W x H)

Key Benefits

- micro miniature size (16 x 9.175 x 1.3 mm, LxWxH)
- 50-MHz Bandwidth: covers GNSS systems from 1560-1610 MHz
- highest radiated efficiency, η, in class (74% at 1575.42 MHz)
- antenna gain, Ga = 1.8 dBi @ Fc = 1575.42 MHz, Linear Polarization
- Ideal for M2M GPS/GNSS requirements

Custom Design Services

Parsecs' technology is uniquely positioned to have the utmost design flexibility with custom design services of both active and passive antenna modules designed to meet your specific electrical and physical requirements. A full suite of design, layout and testing services are available.

Parsec's standard miniature and micro-miniature antenna products have best in class efficiency with small ground planes and easy placement with minimal restrictions on keep-out areas or board placement. Other design options include GPS/GNSS + CDMA in the same antenna or GPS/GNSS + Wi-Fi. See what Parsec can do for you. Call today.

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Plano, Texas 75074

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Email:
sales@parsec-t.com

Web:
www.parsec-t.com

Oxford Technical Solutions
Racelogic Labsat
Rockwell Collins
Septentrio Satellite Navigation
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Spectracom
Spirent Federal Systems
TeleOrbit GmbH
THALES
Topcon Positioning Systems
Trimble

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Geneq, Inc.
GEOsat GmbH
Harxon Corporation
Hemisphere GNSS
JAVAD GNSS
Locata
Microwave Photonic Systems
NVS Technologies AG
Topcon Positioning Systems
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INTEGRATED INSTRUMENTATION WITH GPS

Automated machine control
Applanix
CHC Navigation
ComNav Technology
DataGrid Inc.
Geodetics, Inc.
Harxon Corporation
Hemisphere GNSS
Japan Radio Co. Ltd.
JAVAD GNSS
KCS BV
Leica Geosystems
NavCom Technology
Oxford Technical Solutions
Topcon Positioning Systems
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Bar-code scanner
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Positioning Systems
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Camera
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ikeGPS Inc.
Infospectrum
JAVAD GNSS
KCS BV
Racelogic Labsat
Topcon Positioning Systems
Trimble

Wireless communications
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Baseband Technologies, Inc.
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Broadcom Corporation
ComNav Technology
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Furuno USA, Inc.
Geodetics, Inc.
GEOsat GmbH
GPS Networking, Inc.
Harxon Corporation
ikeGPS Inc.
Impact Power, Inc.
Intel
Japan Radio Co. Ltd.
JAVAD GNSS
KCS BV
Laipac Technology, Inc.
Leica Geosystems
Microwave Photonic Systems
NavCom Technology
Parsec Technologies, Inc.
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Precise Time and Frequency, Inc.
Rojone Pty. Ltd.
Spectracom
Spectratime
Spectrum Instruments, Inc.
Tallysman Wireless
Telit Wireless Solutions
Topcon Positioning Systems
Trimble
u-blox AG

Datalogger
Aeroflex
Altus Positioning Systems
Applanix
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ComNav Technology
DataGrid Inc.
ftech Radio Frequency System Corporation
GlobalTop Technology, Inc.
ikeGPS Inc.
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Leica Geosystems
Oxford Technical Solutions
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Rojone Pty. Ltd.
Septentrio Satellite Navigation
Tallysman Wireless
Telit Wireless Solutions
Topcon Positioning Systems
Trimble
u-blox AG

Infrared/multispectral sensors
Applanix
Trimble

Integrity monitoring
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KCS BV
Leica Geosystems
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Leica Geosystems
Rockwell Collins
Topcon Positioning Systems
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Leica Geosystems
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NavCom Technology
Topcon Positioning Systems
Trimble

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ikeGPS Inc.
JAVAD GNSS
PCTEL
Topcon Positioning Systems
Trimble

Yield monitors
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Topcon Positioning Systems
Trimble

Ionospheric calibrators
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MAPPING

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Global Navigation Software Co.
Leica Geosystems
Trimble

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Geodetics, Inc.
Global Navigation Software Co.
i-cubed
ikeGPS Inc.
Leica Geosystems
Rojone Pty. Ltd.
Topcon Positioning Systems
Trimble

Digital mapbases
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Global Navigation Software Co.
i-cubed
ikeGPS Inc.
Trimble

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Laipac Technology, Inc.
Leica Geosystems
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Silicom
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Trimble

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Topcon Positioning Systems
Trimble

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Rockwell Collins
Silicom
Topcon Positioning Systems
Trimble

ADVERTORIAL

Spirent Federal Systems

SPIRENT GSS9000 SIMULATION SYSTEM

SPIRENT GSS7790 SIMULATION SYSTEM

CONTROLLED RECEPTION PATTERN ANTENNA (CRPA) TEST SYSTEM

GNSS SIMULATORS

Spirent is the world's leading provider of GPS/GNSS simulators. We provide simulators that cover all applications, including research and development, integration/verification, and production testing. With a broad line of products, we are sure to have the right solution for you.

GSS9000

The newly released Spirent GSS9000 Multi-Frequency, Multi-GNSS RF Constellation Simulator can simulate signals from all GNSS and regional navigation. The GSS9000 offers a four-fold increase in RF signal iteration rate (SIR) over Spirent's GSS8000 simulator. The GSS9000 SIR is 1000 Hz (1ms), enabling higher dynamic simulations with more accuracy and fidelity. It includes support for restricted and classified signals from the GPS and Galileo systems, as well as advanced capabilities for ultra-high dynamics. It can evaluate resilience of navigation systems to interference and spoofing attacks, and has the flexibility to reconfigure constellations, channels, and frequencies between test runs or test cases.

Hardware changes can be done in the field, supported by the new on-board calibrator module. The GSS9000 is extensible and can support the widest range of carriers, ranging codes, and data streams for the Galileo, GPS, GLONASS, and BeiDou systems, as well as regional/augmentation systems. Multi-antenna/multi-vehicle simulation, for differential-GNSS and attitude determination, and interference/jamming and spoofing testing are also supported.

CRPA Test System

Spirent's Controlled Reception Pattern Antenna (CRPA) Test System generates both GNSS and interference signals. Users can control multiple antenna elements. Null-steering and space/time adaptive CRPA testing are both supported by this comprehensive approach.

GSS7790

Spirent's GSS7790 Multi-Output Simulation System allows the signal from each satellite to be mapped to a separate RF output. These signals can then be fed to individual transmit antennas, which when suitably deployed in an anechoic chamber, replicate the spatial diversity of satellite and jammer signals incident on the receiver antenna. Additional flexibility is offered as the signal is further split into its GPS L1 and L2 components, as appropriate.

With more than 25 years of GPS/GNSS simulation experience, Spirent provides simulators that incorporate the highest levels of quality, accuracy, fidelity, and reliability with unparalleled performance and customer support.

SPIRENT Federal Systems

Spirent Federal Systems
1402 W. State Rd
Pleasant Grove, UT 84062

Phone:
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Fax:
801 785 1294

Email:
info@spirentfederal.com

Web:
www.spirentfederal.com

Key contacts:
Jeff Martin
Director of Sales

Kalani Needham
Sales Manager

Systems
ALLSAT GmbH
Applanix
Geodetics, Inc.
Global Navigation Software Co.
ikeGPS Inc.
NavCom Technology
Oxford Technical Solutions
Racelogic Labsat
Topcon Positioning Systems
Trimble

Market analyses/reports
Racelogic Labsat

PHOTOGRAMMETRY/GPS INTEGRATED SYSTEMS

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Geodetics, Inc.
Global Navigation Software Co.
i-cubed
ikeGPS Inc.
JAVAD GNSS
Leica Geosystems
NavCom Technology
Oxford Technical Solutions
Rockwell Collins
Topcon Positioning Systems
Trimble

PRECISE EPHEMERIS INFORMATION

Applanix
Baseband Technologies, Inc.
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i-cubed
NavCom Technology
Rockwell Collins
Topcon Positioning Systems
Trimble

PUBLICATIONS, GUIDES, VIDEOS, TRAINING SOFTWARE, ETC.

i-cubed
Leica Geosystems
Rockwell Collins
Topcon Positioning Systems
Trimble

RECEIVER COMPONENTS

Alphanumeric displays
Furuno USA, Inc.
ikeGPS Inc.
Leica Geosystems
Rockwell Collins
Topcon Positioning Systems
Trimble

Bandpass filters
Broadcom Corporation
GPS Networking, Inc.
Microwave Photonic Systems
Rojone Pty. Ltd.
Silicom

Chips/ICs
Baseband Technologies, Inc.
Broadcom Corporation
CSR plc
Furuno USA, Inc.
Intel
Japan Radio Co. Ltd.
NavCom Technology
NVS Technologies AG
Parsec Technologies, Inc.
Racelogic Labsat
SigNav Pty. Ltd.
SkyTraq Technology, Inc.
STMicroelectronics
Topcon Positioning Systems
Trimble
u-blox AG

Graphical displays
Broadcom Corporation
Furuno USA, Inc.
Geodetics, Inc.
ikeGPS Inc.
Leica Geosystems
Oxford Technical Solutions
Racelogic Labsat
Rockwell Collins
Topcon Positioning Systems
Trimble

Interfaces
Ashtech OEM
Baseband Technologies, Inc.
Broadcom Corporation
ComNav Technology
Furuno USA, Inc.
Geodetics, Inc.
Harxon Corporation
ikeGPS Inc.
NavCom Technology
Oxford Technical Solutions
Racelogic Labsat
Rockwell Collins
Topcon Positioning Systems
Trimble

Modules
Allis Communications Co. Ltd.
Antenova Ltd.
Ashtech OEM
Baseband Technologies, Inc.
Broadcom Corporation
ComNav Technology
Falcom USA
FEI-Zyfer, Inc.
Furuno USA, Inc.
Geodetics, Inc.
Hemisphere GNSS
Impact Power, Inc.
Inventek Systems
Jackson Labs Technologies, Inc.
Japan Radio Co. Ltd.
Laipac Technology, Inc.
Micro Modular Technologies
Microwave Photonic Systems
NavCom Technology
NVS Technologies AG
Parsec Technologies, Inc.
Racelogic Labsat
Raytheon Space and Airborne Systems
Rockwell Collins
Rojone Pty. Ltd.
SigNav Pty. Ltd.
SkyTraq Technology, Inc.
Spectratime
TeleOrbit GmbH
Telit Wireless Solutions
THALES
Topcon Positioning Systems
Trimble
u-blox AG

Quartz crystals
FEI-Zyfer, Inc.
Rakon
Spectratime
Time & Frequency Solutions Ltd.

RF amplifiers/preamplifiers
Allis Communications Co. Ltd.
Broadcom Corporation
EndRun Technologies
GPS Networking, Inc.
GPS Source, Inc.
Harxon Corporation
Impact Power, Inc.
Microwave Photonic Systems
NavCom Technology
NVS Technologies AG
Parsec Technologies, Inc.
PCTEL
Precise Time and Frequency, Inc.
Rojone Pty. Ltd.
Silicom
Tallysman Wireless
Topcon Positioning Systems

RECEIVER-PERFORMANCE ANALYSIS

Averna
Broadcom Corporation
CAST Navigation LLC
Geodetics, Inc.
ikeGPS Inc.
Leica Geosystems
Oxford Technical Solutions
Rohde & Schwarz
Silicom
Spirent Federal Systems
TeleOrbit GmbH
Topcon Positioning Systems
Trimble

RECEIVERS

Attitude/direction finding
Applanix
Ashtech OEM
DataGrid Inc.
Falcom USA
ftech Radio Frequency System Corporation
Furuno USA, Inc.
Geodetics, Inc.
GlobalTop Technology, Inc.
Harxon Corporation
Hemisphere GNSS
ikeGPS Inc.
Inventek Systems
JAVAD GNSS
NavCom Technology
Rockwell Collins
Rojone Pty. Ltd.
Septentrio Satellite Navigation
Spectracom
Surrey Satellite Technology Ltd.
Trimble

Automatic vehicle location
Applanix
Broadcom Corporation
Falcom USA
ftech Radio Frequency System Corporation
Geodetics, Inc.
GEOsat GmbH
GlobalTop Technology, Inc.
Infospectrum
Inventek Systems
Japan Radio Co. Ltd.
KCS BV
Laipac Technology, Inc.
NVS Technologies AG
Rojone Pty. Ltd.
Septentrio Satellite Navigation
Topcon Positioning Systems
Trimble
u-blox AG

Aviation
Ashtech OEM
BAE Systems Rokar
Exelis, Inc.
Falcom USA
FEI-Zyfer, Inc.
Geodetics, Inc.
Harxon Corporation
Hemisphere GNSS
JAVAD GNSS
NavCom Technology
NovAtel, Inc.
NVS Technologies AG
Oxford Technical Solutions
Racelogic Labsat
Raytheon Space and Airborne Systems
Rockwell Collins
Rojone Pty. Ltd.
Septentrio Satellite Navigation
Spectratime
THALES
Topcon Positioning Systems

Computer GPS cards/modules
Baseband Technologies, Inc.
Brandywine Communications
Broadcom Corporation
DataGrid Inc.
Geodetics, Inc.
ikeGPS Inc.
Infospectrum
Inventek Systems
NavCom Technology
NVS Technologies AG
Racelogic Labsat
Raytheon Space and Airborne Systems
Rockwell Collins
Rojone Pty. Ltd.
Spectracom
Trimble
u-blox AG

Digital signal prcessor integrated chip (DSP-IC)
NavCom Technology
Oxford Technical Solutions
Rojone Pty. Ltd.
Trimble

Geodetic/geophysical
Applanix
CHC Navigation
ComNav Technology
DataGrid Inc.
Exelis, Inc.
Geodetics, Inc.
JAVAD GNSS
Leica Geosystems
NavCom Technology
NVS Technologies AG
Oxford Technical Solutions
Racelogic Labsat
Rojone Pty. Ltd.
Septentrio Satellite Navigation
Sokkia Corporation
Topcon Positioning Systems
Trimble

Handheld
Altus Positioning Systems

Applanix
Beijng UniStrong Science & Technology
Broadcom Corporation
CHC Navigation
ComNav Technology
Exelis, Inc.
Falcom USA
ftech Radio Frequency System Corporation
Geneq, Inc.
Geodetics, Inc.
GEOsat GmbH
GlobalTop Technology, Inc.
Hemisphere GNSS
ikeGPS Inc.
Interstate Electronics (L-3 Communications)
Inventek Systems
Leica Geosystems
NVS Technologies AG
Raytheon Space and Airborne Systems
Rockwell Collins
Rojone Pty. Ltd.
Septentrio Satellite Navigation
Topcon Positioning Systems
Trimble

Land vehicle navigation/route guidance

Altus Positioning Systems
Applanix
BAE Systems Rokar
Beijng UniStrong Science & Technology
Exelis, Inc.
Falcom USA
Furuno USA, Inc.
Geodetics, Inc.
Harxon Corporation
Hemisphere GNSS
Interstate Electronics (L-3 Communications)
Inventek Systems
Japan Radio Co. Ltd.
KCS BV
Leica Geosystems
NavCom Technology
NovAtel, Inc.
NVS Technologies AG
Oxford Technical Solutions
PCTEL
Racelogic Labsat
Raytheon Space and Airborne Systems
Rockwell Collins
Rojone Pty. Ltd.
Septentrio Satellite Navigation
TeleOrbit GmbH
Topcon Positioning Systems
Trimble

Marine

Allis Communications Co. Ltd.
Altus Positioning Systems
Applanix
Ashtech OEM
Brandywine Communications
CHC Navigation
ComNav Technology
DataGrid Inc.
Exelis, Inc.
Falcom USA
Furuno USA, Inc.
Geodetics, Inc.
Harxon Corporation
Hemisphere GNSS
Impact Power, Inc.
Inventek Systems
JAVAD GNSS
KCS BV
NavCom Technology
NovAtel, Inc.
NVS Technologies AG
Oxford Technical Solutions
Rockwell Collins
Rojone Pty. Ltd.
Septentrio Satellite Navigation
THALES
Topcon Positioning Systems
Trimble
u-blox AG

Military

Applanix
Ashtech OEM
BAE Systems Rokar
Baseband Technologies, Inc.
Brandywine Communications
CAST Navigation LLC
EndRun Technologies
Exelis, Inc.
Falcom USA
FEI-Zyfer, Inc.
Geodetics, Inc.
Interstate Electronics (L-3 Communications)
Jackson Labs Technologies, Inc.
KCS BV
NavCom Technology
NovAtel, Inc.
NVS Technologies AG
Oxford Technical Solutions
Precise Time and Frequency, Inc.
Raytheon Space and Airborne Systems
Rockwell Collins
Rojone Pty. Ltd.
Silicom
Spectratime
Spectrum Instruments, Inc.
Spirent Federal Systems
THALES
Topcon Positioning Systems
Trimble

OEM modules/engines/chipsets

Applanix
Ashtech OEM
BAE Systems Rokar
Baseband Technologies, Inc.
Brandywine Communications
Broadcom Corporation
ComNav Technology
CSR plc
DataGrid Inc.
Exelis, Inc.
FEI-Zyfer, Inc.
ftech Radio Frequency System Corporation
Furuno USA, Inc.
Geodetics, Inc.
GlobalTop Technology, Inc.
Hemisphere GNSS
Infospectrum
Intel
Inventek Systems
Jackson Labs Technologies, Inc.
Japan Radio Co. Ltd.
JAVAD GNSS
Laipac Technology, Inc.
Leica Geosystems
Loctronix Corp.
NavCom Technology
NovAtel, Inc.
NVS Technologies AG
Oxford Technical Solutions
Parsec Technologies, Inc.
Precise Time and Frequency, Inc.
Raytheon Space and Airborne Systems
Rockwell Collins
Rojone Pty. Ltd.
Septentrio Satellite Navigation
SigNav Pty. Ltd.
SkyTraq Technology, Inc.
Spectratime
Spectrum Instruments, Inc.
Tallysman Wireless
Telit Wireless Solutions
THALES
Topcon Positioning Systems
Trimble
u-blox AG

PCMCIA cards

Furuno USA, Inc.
Geodetics, Inc.
ikeGPS Inc.
Leica Geosystems
Rojone Pty. Ltd.

Radio frequency integrated chip (RF-IC)

Baseband Technologies, Inc.
Laipac Technology, Inc.
NavCom Technology
Parsec Technologies, Inc.
Rojone Pty. Ltd.
Silicom
STMicroelectronics
Trimble
u-blox AG

Software receivers

Baseband Technologies, Inc.
Exelis, Inc.
IFEN
Loctronix Corp.
Nottingham Scientific Ltd.
NVS Technologies AG
Oxford Technical Solutions
Rojone Pty. Ltd.
Silicom
TeleOrbit GmbH
Trimble
u-blox AG

Space

BAE Systems Rokar
ComNav Technology
DataGrid Inc.
Exelis, Inc.
FEI-Zyfer, Inc.
Geodetics, Inc.
JAVAD GNSS
Rockwell Collins
Rojone Pty. Ltd.
Silicom
Spectratime
Surrey Satellite Technology Ltd.
Trimble

Surveying

Altus Positioning Systems
Applanix
CHC Navigation
ComNav Technology
DataGrid Inc.
Exelis, Inc.
Geneq, Inc.
Geodetics, Inc.
Harxon Corporation
Hemisphere GNSS
JAVAD GNSS
Leica Geosystems
NavCom Technology
NovAtel, Inc.
Oxford Technical Solutions
Rojone Pty. Ltd.
Septentrio Satellite Navigation
Sokkia Corporation
Spectra Precision
Topcon Positioning Systems
Trimble
u-blox AG

Surveying/GIS

Altus Positioning Systems
Applanix
Beijng UniStrong Science & Technology
CHC Navigation
ComNav Technology
DataGrid Inc.
Exelis, Inc.
Geneq, Inc.
Geodetics, Inc.
GEOsat GmbH
Harxon Corporation
Hemisphere GNSS
ikeGPS Inc.
JAVAD GNSS
Leica Geosystems
NavCom Technology
NovAtel, Inc.
Oxford Technical Solutions
Rojone Pty. Ltd.
Septentrio Satellite Navigation
Sokkia Corporation
Spectra Precision
Topcon Positioning Systems

Surveying/RTK

Altus Positioning Systems
Applanix
Ashtech OEM
CHC Navigation
ComNav Technology
DataGrid Inc.
Exelis, Inc.
Geneq, Inc.
Geodetics, Inc.
Harxon Corporation
Hemisphere GNSS
JAVAD GNSS
Leica Geosystems
NavCom Technology
NovAtel, Inc.
NVS Technologies AG
Oxford Technical Solutions
Racelogic Labsat
Rojone Pty. Ltd.
Septentrio Satellite Navigation
Sokkia Corporation
Spectra Precision
Topcon Positioning Systems
Trimble

Timing

Allis Communications Co. Ltd.
Brandywine Communications
Broadcom Corporation
ComNav Technology
EndRun Technologies
ESE
Exelis, Inc.
FEI-Zyfer, Inc.
ftech Radio Frequency System Corporation

Furuno USA, Inc.
GlobalTop Technology, Inc.
Harxon Corporation
Impact Power, Inc.
Jackson Labs Technologies, Inc.
JAVAD GNSS
Leica Geosystems
NovAtel, Inc.
NVS Technologies AG
Oxford Technical Solutions
PCTEL
Precise Time and Frequency, Inc.
Rockwell Collins
Rojone Pty. Ltd.
Septentrio Satellite Navigation
SigNav Pty. Ltd.
SkyTraq Technology, Inc.
Spectracom
Spectratime
Spectrum Instruments, Inc.
Tallysman Wireless
Telit Wireless Solutions
THALES
Time & Frequency Solutions Ltd.
Trimble
u-blox AG

Tracking

Applanix
Baseband Technologies, Inc.
CSR plc
Exelis, Inc.
Falcom USA
ftech Radio Frequency System Corporation
Furuno USA, Inc.
Geodetics, Inc.
GEOsat GmbH
GlobalTop Technology, Inc.
ikeGPS Inc.
Infospectrum
Interstate Electronics (L-3 Communications)
Inventek Systems
Japan Radio Co. Ltd.
JAVAD GNSS
KCS BV
Laipac Technology, Inc.
NavCom Technology
Oxford Technical Solutions
PCTEL
Raytheon Space and Airborne Systems
Rockwell Collins
Rojone Pty. Ltd.
Silicom
Tallysman Wireless
Topcon Positioning Systems
Trimble
u-blox AG

SATELLITE SIGNAL SIMULATORS/PSEUDOLITES

Aeroflex
BAE Systems Rokar
Broadcom Corporation
CAST Navigation LLC
Harxon Corporation
IFEN
Interstate Electronics (L-3 Communications)
Loctronix Corp.
Microwave Photonic Systems
Nottingham Scientific Ltd.
NVS Technologies AG
Racelogic Labsat
Rockwell Collins
Rohde & Schwarz
Silicom
Spectracom
Spirent Federal Systems
TeleOrbit GmbH

SECURITY CODE DECRYPTION DEVICES

Raytheon Space and Airborne Systems

SEMINARS/TRAINING

ALLSAT GmbH
Broadcom Corporation
Falcom USA
Furuno USA, Inc.
GEOsat GmbH
Leica Geosystems
NavCom Technology
Spectratime
Topcon Positioning Systems
Trimble
u-blox AG

SOFTWARE

Coordinate conversion

ALLSAT GmbH
CHC Navigation
DataGrid Inc.
Effigis Geo Solutions Inc.
Geodetics, Inc.
i-cubed
Inventek Systems
JAVAD GNSS
Leica Geosystems
NavCom Technology
NVS Technologies AG
Rockwell Collins
Sokkia Corporation
Topcon Positioning Systems
Trimble

Geodetic surveying

ALLSAT GmbH
Applanix
CHC Navigation
ComNav Technology
DataGrid Inc.
Effigis Geo Solutions Inc.
Geneq, Inc.
Geodetics, Inc.
Global Navigation Software Co.
JAVAD GNSS
Leica Geosystems
NavCom Technology
Sokkia Corporation
Spectra Precision
Topcon Positioning Systems
Trimble

Geotagging

Applanix
Baseband Technologies, Inc.
Effigis Geo Solutions Inc.
Falcom USA
i-cubed
ikeGPS Inc.
Infospectrum
NVS Technologies AG
Trimble
u-blox AG

GIS/LIS

ALLSAT GmbH
Applanix
Geodetics, Inc.
GEOsat GmbH
i-cubed
ikeGPS Inc.
JAVAD GNSS
Leica Geosystems
Topcon Positioning Systems
Trimble

GPS-related Internet applications (mapping, navigation, tracking, etc.)

ALLSAT GmbH
Applanix
Baseband Technologies, Inc.
Falcom USA
Geodetics, Inc.
GEOsat GmbH
Geotab
Global Navigation Software Co.
Harxon Corporation
i-cubed
ikeGPS Inc.
Infospectrum
Inventek Systems
Laipac Technology, Inc.
Leica Geosystems
Precise Time and Frequency, Inc.
Racelogic Labsat
Rojone Pty. Ltd.
Silicom
TeleOrbit GmbH
Topcon Positioning Systems
Trimble
u-blox AG

Mapping

ALLSAT GmbH
Applanix
Baseband Technologies, Inc.
Furuno USA, Inc.
Global Navigation Software Co.
i-cubed
ikeGPS Inc.
JAVAD GNSS
Laipac Technology, Inc.
Leica Geosystems
Oxford Technical Solutions
PeopleNet
Rojone Pty. Ltd.
Silicom
Sokkia Corporation
Spectra Precision
Topcon Positioning Systems
Trimble

Mission planning

Applanix
Broadcom Corporation
Effigis Geo Solutions Inc.
Global Navigation Software Co.
ikeGPS Inc.
Leica Geosystems
NavCom Technology
Rockwell Collins
Rohde & Schwarz
Sokkia Corporation
Topcon Positioning Systems
Trimble

Navigation/route guidance

ALLSAT GmbH
Applanix
Broadcom Corporation
Falcom USA
Furuno USA, Inc.
Geodetics, Inc.
Geotab
Global Navigation Software Co.
Interstate Electronics (L-3 Communications)
Laipac Technology, Inc.
Leica Geosystems
Loctronix Corp.
NavCom Technology
PeopleNet
Racelogic Labsat
Rockwell Collins
Silicom
TeleOrbit GmbH
Trimble

Network adjustment

Applanix
ComNav Technology
Effigis Geo Solutions Inc.
Geodetics, Inc.
Leica Geosystems
NavCom Technology
Precise Time and Frequency, Inc.
Sokkia Corporation
Spectra Precision
Topcon Positioning Systems
Trimble

Orbit analysis and simulation

Aeroflex
Baseband Technologies, Inc.
Broadcom Corporation
CAST Navigation LLC
Geodetics, Inc.
Loctronix Corp.
NavCom Technology
NVS Technologies AG
Rockwell Collins
Rohde & Schwarz

Rakon

World leaders in precision GNSS frequency control solutions.

Application engineering and support offices: USA, China, England, France, Germany, Japan, Korea, New Zealand and Taiwan.

www.rakon.com
Email: sales@rakon.com

rakon

Silicom
TeleOrbit GmbH
Trimble

Pre-/postprocessing
ALLSAT GmbH
Applanix
Broadcom Corporation
CHC Navigation
DataGrid Inc.
Effigis Geo Solutions Inc.
Geneq, Inc.
Geodetics, Inc.
Global Navigation Software Co.
i-cubed
IFEN
JAVAD GNSS
Leica Geosystems
NavCom Technology
NovAtel, Inc.
Oxford Technical Solutions
Rockwell Collins
Septentrio Satellite Navigation
Spectra Precision
Topcon Positioning Systems
Trimble

System performance analysis
Averna
Broadcom Corporation
CAST Navigation LLC
Geodetics, Inc.
ikeGPS Inc.
Leica Geosystems
Loctronix Corp.
Nottingham Scientific Ltd.
Oxford Technical Solutions
Precise Time and Frequency, Inc.
Racelogic Labsat
Rohde & Schwarz
Spectratime
Spirent Federal Systems
TeleOrbit GmbH
Topcon Positioning Systems
Trimble

Vehicle/vessel/asset tracking
Applanix
Baseband Technologies, Inc.
CSR plc
Falcom USA
Furuno USA, Inc.
Geodetics, Inc.
Geotab
Global Navigation Software Co.
ikeGPS Inc.
Infospectrum
Inventek Systems
KCS BV
Laipac Technology, Inc.
NavCom Technology
NVS Technologies AG
Oxford Technical Solutions
PeopleNet
Rojone Pty. Ltd.
TeleOrbit GmbH
Topcon Positioning Systems
Trimble
u-blox AG

SURVEYING-RELATED EQUIPMENT

Dataloggers
ALLSAT GmbH
Altus Positioning Systems
DataGrid Inc.
Falcom USA
Geneq, Inc.
GEOsat GmbH
Hemisphere GNSS
ikeGPS Inc.
KCS BV
Leica Geosystems
Oxford Technical Solutions
Panasonic Electric Works of America
Racelogic Labsat
Rockwell Collins
Rojone Pty. Ltd.
Septentrio Satellite Navigation
Silicom
Sokkia Corporation
Spectra Precision
Topcon Positioning Systems
Trimble

Electronic fieldbooks
ALLSAT GmbH
Geneq, Inc.
KCS BV
Leica Geosystems
Rojone Pty. Ltd.
Silicom
Sokkia Corporation
Spectra Precision
Topcon Positioning Systems
Trimble

Pen-based survey/GIS
ALLSAT GmbH
Geodetics, Inc.
Leica Geosystems
Sokkia Corporation
Trimble

SYSTEM DESIGN/ INTEGRATION

ALLSAT GmbH
Applanix
Averna
CAST Navigation LLC
ComNav Technology
Falcom USA
ikeGPS Inc.
Microwave Photonic Systems
NavCom Technology
NVS Technologies AG
Oxford Technical Solutions
Racelogic Labsat
Raytheon Space and Airborne Systems
Rockwell Collins
Rohde & Schwarz
Rojone Pty. Ltd.
Spirent Federal Systems
Trimble

TIMING

Time-code generators
Brandywine Communications
EndRun Technologies
ESE
FEI-Zyfer, Inc.
GlobalTop Technology, Inc.
NVS Technologies AG
Orca Technologies, LLC
Panasonic Electric Works of America
Precise Time and Frequency, Inc.
Spectracom
Spectrum Instruments, Inc.
Time & Frequency Solutions Ltd.
u-blox AG

Time-transfer stations
EndRun Technologies
Exelis, Inc.
FEI-Zyfer, Inc.
Microwave Photonic Systems
NVS Technologies AG
Panasonic Electric Works of America
Precise Time and Frequency, Inc.
Rockwell Collins
Septentrio Satellite Navigation
Spectrum Instruments, Inc.
Time & Frequency Solutions Ltd.
u-blox AG

Timing clocks
Brandywine Communications
ComNav Technology
EndRun Technologies
ESE
FEI-Zyfer, Inc.
Jackson Labs Technologies, Inc.
NovAtel, Inc.
NVS Technologies AG
Orca Technologies, LLC
Panasonic Electric Works of America
Precise Time and Frequency, Inc.
Rakon
Septentrio Satellite Navigation
Spectracom
SpectraDynamics, Inc.
Spectratime
Spectrum Instruments, Inc.
Time & Frequency Solutions Ltd.
Trimble
u-blox AG

Timing/frequency systems
Brandywine Communications
EndRun Technologies
ESE
FEI-Zyfer, Inc.
Furuno USA, Inc.
Jackson Labs Technologies, Inc.
JAVAD GNSS
Leica Geosystems
Loctronix Corp.
Microwave Photonic Systems
NVS Technologies AG
Orca Technologies, LLC
Panasonic Electric Works of America
PCTEL
Precise Time and Frequency, Inc.
Rakon
Septentrio Satellite Navigation
SigNav Pty. Ltd.
Spectracom
SpectraDynamics, Inc.
Spectratime
Spectrum Instruments, Inc.
Time & Frequency Solutions Ltd.
Trimble
u-blox AG

TRACKING SERVICES (MOBILE ASSETS, ROADSIDE ASSISTANCE, E-911, ETC.)

Brandywine Communications
Broadcom Corporation
Furuno USA, Inc.
Geodetics, Inc.
Geotab
GlobalTop Technology, Inc.
Infospectrum
Japan Radio Co. Ltd.
KCS BV
NavCom Technology
PCTEL
Racelogic Labsat
Rojone Pty. Ltd.
TeleOrbit GmbH
Topcon Positioning Systems
Trimble

VEHICLE LOCATION/ TRACKING WORKSTATIONS AND SYSTEMS (COMPUTER-AIDED DISPATCH)

Broadcom Corporation
Furuno USA, Inc.
Geodetics, Inc.
GEOsat GmbH
GlobalTop Technology, Inc.
Harxon Corporation
Infospectrum
Japan Radio Co. Ltd.
KCS BV
Laipac Technology, Inc.
NVS Technologies AG
Racelogic Labsat
Rojone Pty. Ltd.
Spirent Federal Systems
TeleOrbit GmbH
Topcon Positioning Systems

EndRun Technologies

GPS-derived time & frequency standards – the most precise, stable and reliable in the world. Quality products made in America.

Santa Rosa, California
(707) 573-8633
www.endruntechnologies.com
sales@endruntechnologies.com

EndRun TECHNOLOGIES